

CLAIMS

1. A method of rendering a page, comprising:

starting obtaining operation for obtaining a page made

5 by a markup language;

performing a text browsing mode operation on obtained
part of data of the page in parallel with the obtaining operation
of the page;

judging whether or not acquisition of definition
10 information which is information to be applied to the entire
page so as to render the page as designated by a markup language
document of the page is finished; and

switching onscreen representation, depending on a result
of the judging, from onscreen representation in a text browsing
15 mode to onscreen representation in which the definition
information is applied.

2. A method of rendering a page, comprising:

starting obtaining operation for obtaining a page made

20 by a markup language;

performing a text browsing mode operation on obtained
part of data of the page in parallel with the obtaining operation
of the page;

judging whether or not data of a predetermined number's
25 screenfulls against the page is obtained; and

switching onscreen representation, depending on a result
of the judging, from onscreen representation in a text browsing

mode to onscreen representation in which definition information designated in a markup language document of the page and applied to the entire page so as to render the page as designated by the document is applied.

5

3. A method of rendering a page, comprising:

starting obtaining operation for obtaining a page made by a markup language;

performing a text browsing mode operation on obtained
10 part of data of the page in parallel with the obtaining operation of the page;

judging whether or not a predetermined time period has elapsed from a start of the obtaining operation; and

switching onscreen representation, depending on a result
15 of the judging, from onscreen representation in a text browsing mode to onscreen representation in which definition information designated in a markup language document of the page and applied to the entire page so as to render the page as designated by the document is applied.

20

4. A method of rendering a page, comprising:

starting obtaining operation for obtaining a page made by a markup language;

performing a text browsing mode operation on obtained
25 part of data of the page in parallel with the obtaining operation of the page;

judging whether or not predetermined user operation is

performed; and

switching onscreen representation, depending on a result of the judging, from onscreen representation in a text browsing mode to onscreen representation in which definition information
5 designated in a markup language document of the page and applied to the entire page so as to render the page as designated by the document is applied.

5. The method according to claim 4,

10 wherein the predetermined user operation includes operation for canceling the switching of the onscreen representation, and

wherein the switching of the onscreen representation is cancelled if it is judged by the judging that the predetermined
15 user operation is performed, and the switching of the onscreen representation is performed if it is judged by the judging that the predetermined user operation is not performed.

6. The method according to claim 5,

20 wherein the switching is controlled in three stages including a first stage from a start of the obtaining operation of the page to a time of completion of acquisition of text data of the page, a second stage from the time of the completion of acquisition of the text data of the page to a time of completion
25 of acquisition of the definition information, and a third stage after the completion of acquisition of the definition information, and

wherein the onscreen representation in the text browsing mode is made during the first stage, notification notifying execution of the switching is added to the onscreen representation in the text browsing mode during the second stage, and the onscreen representation in which the definition information is applied is made during the third stage if the predetermined user operation is not performed.

7. The method according to claim 6,

wherein the operation for canceling the switching of the onscreen representation is allowed only in the second stage.

8. The method according to claim 5,

wherein the operation for canceling the switching of the onscreen representation is allowed in a certain time period from completion of acquisition of the definition information.

9. The method according to claim 5,

wherein the operation for canceling the switching of the onscreen representation is allowed in a certain time period between a first time before completion of acquisition of the definition information and a second time after the completion of acquisition of the definition information.

10. The method according to claim 5,

wherein the onscreen representation in the text browsing mode is made during a first stage from a start of the obtaining

operation of the page to a time of completion of acquisition of text data of the page, and

wherein the operation for canceling the switching of the onscreen representation is allowed in a certain time period from
5 completion of acquisition of the definition information.

11. The method according to claim 10,

wherein the operation for canceling the switching of the onscreen representation is not allowed in the first stage, and
10 operation for canceling acquisition of the data of the page is allowed in the first stage.

12. The method according to claim 5,

wherein the operation for canceling the switching of the onscreen representation includes at least one of scrolling
15 operation, storing operation and printing operation.

13. The method according to claim 4,

wherein the predetermined user operation includes
20 operation for performing the switching of the onscreen representation, and

wherein according to the result of the judging, the switching of the onscreen representation is performed if a result of the judging is that the predetermined user operation
25 is performed, and the switching of the onscreen representation is not performed if a result of the judging is that the predetermined user operation is not performed.

14. The method according to claim 13,

wherein the screen representation is controlled in three stages including a first stage from a start of the obtaining
5 operation of the page to a time of completion of acquisition of text data of the page, a second stage from the time of the completion of acquisition of the text data of the page to a time of completion of acquisition of the definition information, and
10 a third stage after the completion of acquisition of the definition information, and

wherein the onscreen representation in the text browsing mode is made during the first stage, notification notifying that execution of the switching is available is added to the onscreen
representation in the text browsing mode during the second stage,
15 and the onscreen representation in the text browsing mode is continued during the third stage unless the predetermined user operation is performed.

15. The method according to claim 14,

20 wherein the operation for performing the switching of the onscreen representation is allowed in the second and third stages.

16. The method according to claim 4, further comprising:

25 storing information regarding a focus position and a scrolling position in the text browsing mode; and

restoring the focus position and the scrolling position,

based on the stored information, in a mode in which the definition information is applied.

17. The method according to claim 16, wherein the restoring
5 includes:

judging whether or not the focus position is within a displaying area defined by the scrolling position; and

adjusting the focus position so that the focus position is within the displaying area if it is judged that the focus
10 position is not within the displaying area.

18. The method according to claim 17,

wherein the adjusting the focus position is performed so that a scrolling amount from the top of a page is minimized and
15 a focus target is displayed appropriately.

19 The method according to claim 16,

wherein the restoring the focus position and the scrolling position is performed so that an item adjacent to the
20 focus position to be restored is used as a focus target in the mode in which the definition information is applied if it is judged that a focus target in the text browsing mode does not exist at a position to be restored in the mode in which the definition information is applied.

25

20. The method according to claim 16,

wherein the onscreen representation in the text browsing

mode and the onscreen representation in which the definition information is applied are made based on a same document described by a markup language of the page; and

wherein the information regarding the focus position and
5 the scrolling position is stored in association with the same document.

21. The method according to claim 4,
wherein the definition information includes an external
10 style sheet.

22. The method according to claim 4,
wherein the definition information includes an external
script.

15 23. The method according to claim 21 or claim 22,
wherein the obtaining operation for obtaining the page includes:

(1) judging whether designation of an external style
20 sheet is contained in the page, and obtaining the external style sheet through a network if it is judged that the designation of the external style sheet is contained in the page; and

(2) judging whether designation of an external script is contained in the page, and obtaining the external script through
25 the network if it is judged that the designation of the external script is contained in the page.

24. The method according to claim 4, further comprising continuing obtaining operation for obtaining remaining data of the page and displaying operation for the remaining data of the page after the switching of the onscreen representation is performed.

25. A method of rendering a page, comprising:
starting obtaining operation for obtaining a page made by a markup language;

performing a text browsing mode operation on obtained part of data of the page in parallel with the obtaining operation of the page;

judging whether or not acquisition of the whole data of the page is completed; and

switching onscreen representation, depending on a result of the judging, from onscreen representation in a text browsing mode to onscreen representation in which definition information designated in a markup language document of the page and applied to the entire page so as to render the page as designated by the document is applied.

26. A method of rendering a page, comprising:
starting obtaining operation for obtaining a page made by a markup language;

performing a first mode operation in which an external style sheet obtained by the obtaining operation is applied in onscreen representation in a text browsing mode;

judging whether or not data of a predetermined number's screenfulls against the page is obtained; and

switching onscreen representation, depending on a result of the judging, from onscreen representation of the first mode operation to onscreen representation in which definition information designated in a markup language document of the page and applied to the entire page so as to render the page as designated by the document is applied.

10 27. A method of rendering a page, comprising:

starting obtaining operation for obtaining a page made by a markup language;

performing firstly displaying operation on data of the page without using definition information to be applied to the entire page so as to render the page as designated by a markup language document of the page; and

performing secondly displaying operation of the data of the page using the definition information in the page.

20 28. A method of rendering a page, comprising:

starting obtaining operation for obtaining a page made by a markup language;

performing operation in a first browsing mode which makes less rich presentation on a screen than a second browsing mode in which an external style sheet and an external script in the page are applied;

judging whether or not acquisition of the external style

sheet and the external script is finished; and

switching onscreen representation, depending on a result of the judging, from onscreen representation in the first browsing mode to onscreen representation in the second browsing
5 mode.

29. A method of rendering a page, comprising:

starting obtaining operation for obtaining a page made by a markup language;

10 performing operation in a first browsing mode which makes less rich presentation on a screen than a second browsing mode in which an external style sheet and an external script in the page are applied;

judging whether or not data of a predetermined number's
15 screenfulls against the page is obtained;

switching onscreen representation, depending on a result of the judging, from onscreen representation in the first browsing mode to onscreen representation in the second browsing mode.

20

30. A method of rendering a page, comprising:

starting obtaining operation for obtaining a page made by a markup language;

performing operation in a first browsing mode which makes
25 less rich presentation on a screen than a second browsing mode in which an external style sheet and an external script in the page are applied;

judging whether or not a predetermined time period has elapsed from a start of the obtaining operation; and

switching onscreen representation, depending on a result of the judging, from onscreen representation in the first
5 browsing mode to onscreen representation in the second browsing mode.

31. A method of rendering a page, comprising:

starting obtaining operation for obtaining a page made
10 by a markup language;

performing operation in a first browsing mode which makes less rich presentation on a screen than a second browsing mode in which an external style sheet and an external script in the page are applied;

15 judging whether or not predetermined user operation is performed; and

switching onscreen representation, depending on a result of the judging, from onscreen representation in the first browsing mode to onscreen representation in the second browsing
20 mode.

32. A method of rendering a page, comprising:

starting obtaining operation for obtaining a page made by a markup language;

25 performing operation in a first browsing mode which makes less rich presentation on a screen than a second browsing mode in which an external style sheet and an external script in the

page are applied;

judging whether or not acquisition of the whole data of the page is completed; and

switching onscreen representation, depending on a result of the judging, from onscreen representation in the first browsing mode to onscreen representation in the second browsing mode.

33. A terminal device, comprising:

- 10 a screen on which onscreen representation is formed;
a network interface interfacing with a network; and
a controller configured to perform functions including:
(a) starting obtaining operation for obtaining a page made by a markup language through the network;
15 (b) performing operation in a first browsing mode which makes less rich presentation on a screen than a second browsing mode in which an external style sheet and an external script in the page are applied;
(c) judging whether or not acquisition of the external
20 style sheet and the external script is finished; and
(d) switching onscreen representation, depending on a result of the judging, from onscreen representation in the first browsing mode to onscreen representation in the second browsing mode.

25

34. A computer program product for use on a terminal device, the computer program product comprising a computer program

executed to achieve a method of rendering a page, the method comprising the steps of:

starting obtaining operation for obtaining a page made by a markup language;

5 performing operation in a first browsing mode which makes less rich presentation on a screen than a second browsing mode in which an external style sheet and an external script in the page are applied;

judging whether or not acquisition of the external style
10 sheet and the external script is finished; and

switching onscreen representation, depending on a result of the judging, from onscreen representation in the first browsing mode to onscreen representation in the second browsing mode.

15